

APR 27 2004

K040067

## **510(k) SUMMARY**

### **SUBMITTER INFORMATION**

- A. Company Name: Spectranetics Corporation, Inc.
- B. Company Address: 96 Talamine Court  
Colorado Springs, Colorado 80907
- C. Company Phone: 719-633-08333 / 1-800-633-0960
- D. Company Facsimile: 719 442 2248
- E. Contact Person: Adrian Elfe  
Vice President  
Quality Assurance & Regulatory Affairs Compliance

### **DEVICE IDENTIFICATION**

- A. Device Trade Name: CLiRpath Excimer Laser Catheter
- B. Device Common Name: Laser Catheter
- C. Classification Name: Catheter, Peripheral, Atherectomy
- D. Device Class: Class II (per 21 CFR 870.4875)
- E. Device Code: MCW

### **IDENTIFICATION OF PREDICATE DEVICES**

The Safe Cross Radio Frequency Total Occlusion Crossing System (IntraLuminal Therapeutics, Inc.), which received market clearance under 510(k) K031842, is the primary predicate device. Other predicate devices include: Rotablator Rotational Angioplasty Systems (Heart Technology, Inc.) cleared under 510(k) applications K901206 and K933328, the Frontrunner CTO Catheter (LuMend, Inc.) cleared under 510(k) K023114, and the Silverhawk Peripheral Catheter System (Foxhollow) cleared under 510(k) K024243.

## **DEVICE DESCRIPTION**

Spectranetics laser atherectomy catheters consist of a bundle of optical fibers, encased within medical grade tubing. The optical fibers conduct ultraviolet laser light (excimer laser light at 308 nm) from a source to the tip of the catheter. The catheter is inserted into a patient's vasculature along the length of a previously inserted medical guidewire, allowing the attending physician to deliver laser energy targeted to a lesion (blockage) in the blood vessel. Both over-the-wire and rapid-exchange catheter configurations are available. Laser energy impinged on a blockage ablates, or debulks, the lesion material thus opening the vessel, permitting placement of devices used in vascular interventions.

Spectranetics laser catheters are supplied in several models having tip diameters between 0.9 mm and 2.5 mm, appropriate for interventional use in peripheral arteries. Both over-the-wire and rapid exchange models are available.

## **INTENDED USE**

CLiRpath™ catheters are intended for use in ablating a channel in totally occlusive peripheral vascular disease (including the superficial femoral, popliteal and infrapopliteal arteries), for enhancing the potential for limb preservation.

## **COMPARISON TO PREDICATE DEVICES**

Spectranetics laser catheters for peripheral use are substantially equivalent in form, fit, and function to four (4) predicate devices, which have received market clearance under section 510(k) rules.

Each of the devices is a catheter, i.e. a piece of tubing with a working length of approximately 100 cm, and a diameter between 0.9 mm and 6.0 mm. The catheters communicate mechanical and/or radiant energy to an occlusion within a patient's arteries in the lower limbs. Communicated energy disrupts occlusive material, such as arterial plaque, and permits its removal either when the catheter is withdrawn, or via the patient's endorecticular system. The pathway opened by each of the devices facilitates subsequent placement of other devices and interventions.

## **BIOCOMPATIBILITY, STERILIZATION, PACKAGING, AND BENCH TESTING**

Biocompatibility of component materials and finished CLiRpath devices has been confirmed in accord with the ISO 10993 series of standards, Biological Evaluation of Medical Devices. Spectranetics conducts and maintains valid ethylene oxide sterilization processes in accord with ISO 11135, Medical Devices - Validation and Routine Control of Ethylene Oxide Sterilization. Package Integrity is initially validated, and, in addition, visually verified for 100% of Spectranetics devices prior to transfer to finished goods inventory.

CLiRpath device integrity and functionality were qualified and/or validated using samples produced under routine manufacturing conditions. All excimer laser CLiRpath catheter models meet or exceed both Spectranetics in-house requirements, and requirements listed in ISO 10555-1, Sterile, Single-use Intravascular Catheters – Part 1: General Requirements.

## **CLINICAL STUDIES**

Forty-seven (47) patients with distal peripheral arterial disease were enrolled at investigational sites in the United States, Germany, and Belgium. The CLiRpath step by step excimer laser catheter procedure successfully crossed 79% of lesions recalcitrant to crossing with conventional guidewires. Overall procedural success was achieved in 72% of the cases, and straight-line blood flow was re-established to the foot in 79% of the cases. Serious adverse events associated with CLiRpath step by step treatments were more rare than those observed during a larger registry study of laser atherectomy in the arteries of the legs.

## **CONCLUSION**

Human clinical studies verified the safety and performance characteristics for Spectranetics CLiRpath excimer laser catheters for use in the treatment of peripheral arterial disease. In vitro laboratory tests, as well as qualification and validation studies, have confirmed that CLiRpath catheters meet manufacturing and design specifications. All of these data combined establish substantial equivalence to the predicate devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center – WO66-G609  
Silver Spring, MD 20993-0002

Spectranetics Corporation  
c/o Mr. Neil Burris  
Senior Clinical Data Services Analyst  
96 Talamine Court  
Colorado Springs, CO 80907

SEP 18 2013

Re: K040067  
Trade/Device Name: CLiRpath Excimer Laser Catheter  
Regulation Number: 21 CFR 870.1250  
Regulation Name: Percutaneous Catheter  
Regulatory Class: Class II  
Product Code: PDU  
Dated: March 23, 2004  
Received: March 24, 2004

Dear Mr. Burris:

This letter corrects our substantially equivalent letter of April 27, 2004.

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA).

You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21

CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638 2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



*for* Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

**7. Statement of Indication for Use****Indication for Use**510(k) Number (if known): K040067DE L  
4/20/04**Device Name: Spectranetics CLiRpath™  
Excimer Laser Catheters****Indications for Use**

For use in the endovascular treatment of symptomatic infrainguinal lower extremity vascular disease where total obstructions cannot be crossed with standard guide wires.

Prescription Use XXXX  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Maria R. Vachner  
(Division Sign-Off)  
Division of Cardiovascular Devices

510(k) Number K040067

Page 1 of 1

CORRECTED PAGE 38 – CLiRpath 510k #K0400067